







# Ruwenzori Expedition

## 1952

Volume II, Numbers 2-7

2. Coleoptera : Plocamotrechus. By R. JEANNEL
3. Coleoptera : Gyrinidae. By P. BRINCK
4. Coleoptera : Mordellidae and Scaptiidae.  
By M. FRANCISCOLO
5. Coleoptera : Cantharidae and Malachiidae.  
By W. WITTMER
6. Coleoptera : Erotylidae (Cladoxeninae and Languriinae)  
By A. VILLIERS
7. Diptera : Culicidae (Dixinae), Anisopodidae and  
Ptychopteridae. By P. FREEMAN

London

Printed by order of the Trustees of the British Museum

Issued March, 1959. Price Five Shillings net





## Coleoptera

## Carabidae-Trechinae

par Dr. R. JEANNEL

Gen. **Plocamotrechus** Jeannel

*Plocamotrechus* Jeannel, 1926, Monogr. *Trechinae* (L'Abeille, 32, p. 543).—1940, Ruwenzori Expédition, vol. III, p. 123.

**Plocamotrechus ruwenzoricus** subsp. **strictus** Jeannel

UGANDA: Monts Ruwenzori, Lake Bujuku, alt. 13,050 ft. (*D. S. Fletcher*, 22-28.vii.1952), 5 exemplaires.

La forme typique a été découverte par L. Burgeon dans la vallée de la Nyamwamba, sur le versant occidental. La subsp. *strictus* Jeannel (Ruwenzori Exp. 1934-5, III, 1940, p. 124) avait déjà été recueillie par F. W. Edwards vers 3200 m. d'altitude dans la vallée Nyamwamba, au dessus du lac George, sur le versant de l'Uganda.

**Plocamotrechus rotundatus** sp.n.

Figure 4.—Long, 4 à 4,5 mm. Aptère. Court, les elytres largement ovales, régulièrement convexes. Brun de poix, avec la marge des élytres roussâtre. Microsculpture très effacée, formée par un réseau à mailles étirées en travers, comme chez le *ruwenzoricus*. Tête arrondie, plus étroite que le pronotum, les mandibules courtes, les yeux petits, plans, à peine plus longs que les tempes. Antennes grêles. Pronotum un peu plus large que long, la base large, les côtés sans sinuosité postérieure, la base rectiligne; gouttière marginale étroite, les fossettes basales petites et peu profondes. Elytres courts et larges, les épaules arrondies; stries fines, toutes visibles, le interstices plans. Pattes courtes.

Chétotaxie normale. Deux soies discales sur le 3° interstrie, contre la 3° strie, l'antérieure vers le quart basal, la postérieure un peu après le milieu.

Mâle inconnu.

Parmi les *Plocamotrechus* du Ruwenzori, cette espèce est la seule avec le *ruwenzoricus* à présenter une microsculpture des élytres formée de mailles étirées en travers. Mais les deux espèces sont très différentes l'une de l'autre, le *ruwenzoricus* étant de grande taille, à élytres oblongs allongés, le *rotundatus* par contre très court, à élytres courts. Ses yeux sont aussi beaucoup plus réduits.



UGANDA: Monts Ruwenzori: Mahoma river, alt. 8350 ft., une femelle (*type*) (D. S. Fletcher, 9.vii.1952).—Lake Mahoma, alt. 9600 ft., une femelle (D. S. Fletcher, 12.vii.1952).

### ***Plocamotrechus burgeoni* Alluaud**

UGANDA: Monts Ruwenzori: Lake Bujuku, alt. 13,050 ft., 3 exemplaires (D. S. Fletcher, 22-28.vii.1952).

Cette espèce dont les types proviennent des sources de la Nyamwamba, versant occidental du pic Batoda, vers 4200 m. d'altitude, avait déjà été reprise en Uganda, vers 3500 m. dans la vallée de la Nyamgasani (D. R. Buxton, Ruwenzori Exp., III, 1934-5, 1940, p. 125).

### ***Plocamotrechus fletcheri* sp.n.**

Figures 1-3.—Long. 5 mm. Aptère. Robuste. Noir, la marge des élytres roussâtre, les antennes et les pattes rougeâtres. Aspect mat, la microsculpture forte, constituée par un réseau de mailles isodiamétrales. Tête courte, déprimée, plus étroite que le pronotum, les mandibules saillantes, les yeux grands et saillants plus longs que les tempes. Antennes peu longues. Pronotum un peu plus large que long, à côtés bien arrondis en avant et base rectiligne, les angles postérieurs obtus mais vifs; gouttière marginale fine, le disque aplani, sans fossettes basales. Elytres oblongs, à épaules arrondies, les stries fines et entières, les interstries plans. Pattes courtes.

Chétotaxie normale. Deux soies discales sur la 3<sup>e</sup> strie, l'antérieure au cinquième basal, la postérieure un peu après le milieu.

Edéage (Figure 2) de même type que celui de l'*alluaudi* Jeann. (Ruwenz. Exp., III, 1940, p. 124, Figures 1 c, d, e), court, avec l'apex simple. Il diffère cependant par l'absence de coudure à la base, l'apex un peu plus long et infléchi, les styles armés de 3 soies et non de 4. La pièce copulatrice est de même forme, en U, mais plus volumineuse encore que celle de la subsp. *edwardsi* Jeann., déjà plus grande que celle de la forme typique.

Le *P. fletcheri* diffère extérieurement de l'*alluaudi* et de sa subsp. *edwardsi* par sa taille plus petite et sa tête bien moins volumineuse.

UGANDA: Monts Ruwenzori: Mahoma river, alt. 8350 ft., un mâle (D. S. Fletcher, 9.vii.1952).

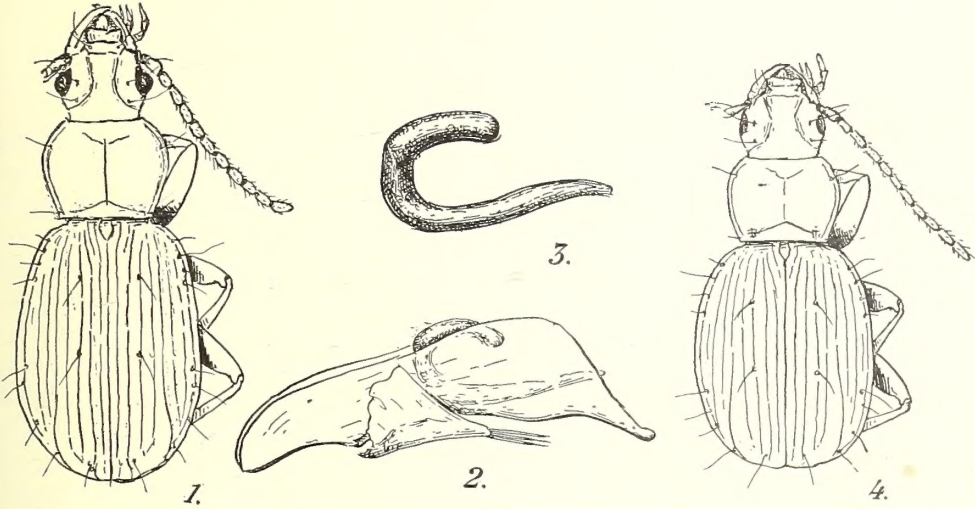
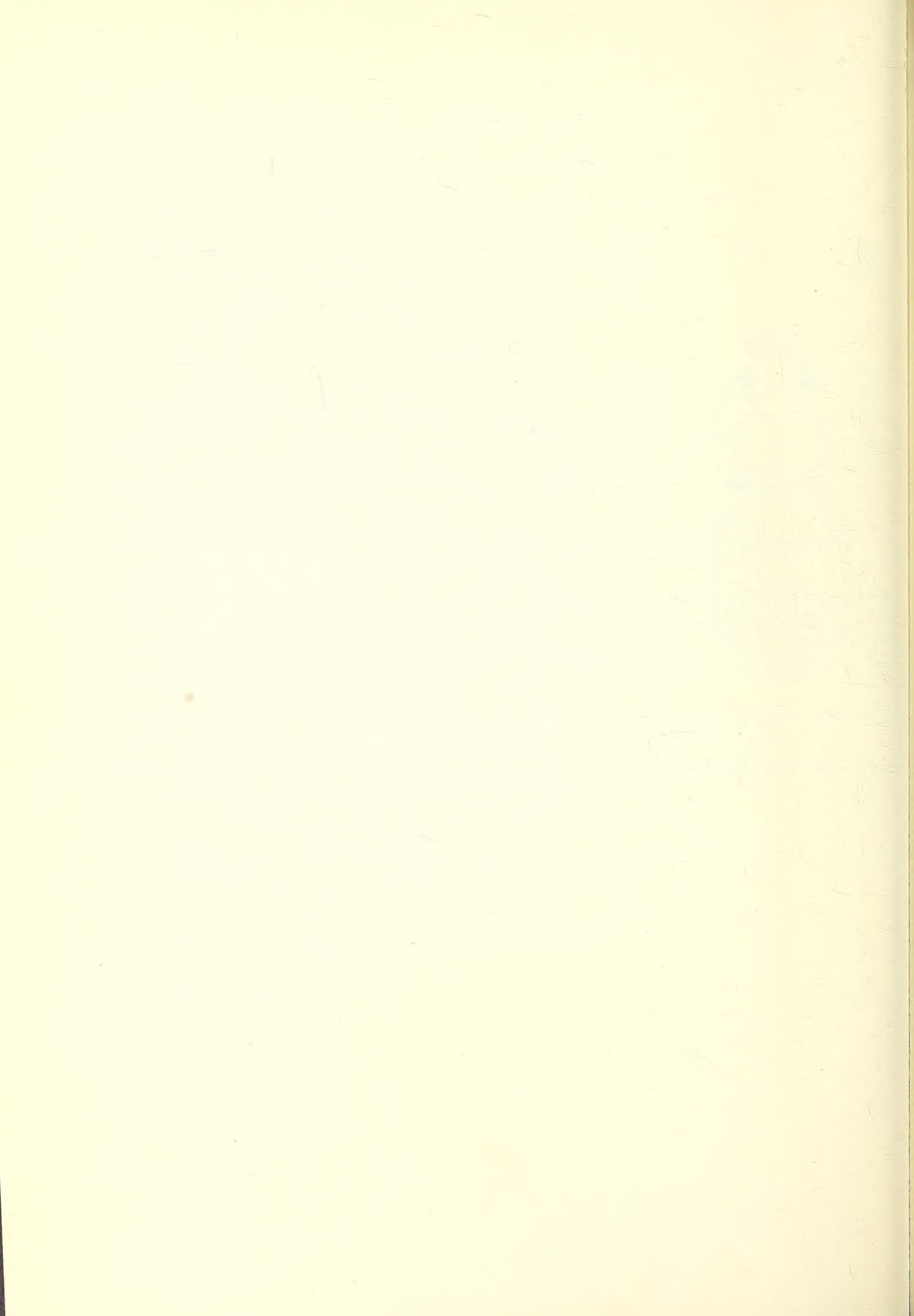


FIG. 1. *Plocamotrechus fletcheri* sp.n., mâle, de Mahoma river,  $\times 12$ . — FIG. 2. Edéage du même,  $\times 45$ . — FIG. 3. Pièce copulatrice plus grossie. — FIG. 4. *Plocamotrechus rotundatus* sp.n., femelle, de Mahoma river,  $\times 12$ .





### 3

## Coleoptera

## Gyrinidae

By PER BRINCK

The whirligig beetles are represented by a great many species in the Ethiopian region. Rather few are widespread. The latter species usually inhabit the plains and the lowland and occur in almost all types of aquatic habitats. Most species, however, live in mountains or mountain ranges and so are geographically more or less restricted. Central African mountains, like Kilimanjaro, Kenya, Elgon &c. are fairly rich in such endemics. Certainly several endemic species occur, also, on Ruwenzori, although we do not know very much about the whirligig fauna of this area. In 1908, the German Adolf Friedrich Expedition collected some material on the mountain and Alwarth described two very interesting species of *Orectogyrus* (*schubotzi* and *ruwenzoricus*) from this material.

The material collected by Mr. Fletcher is fairly small, and contains only some widespread African species. Apparently the locality where the collecting was done was below the region of the endemics. The specimens were collected on a very narrow muddy stream (almost stagnant) flowing in the clearings made by the roadside in the Semliki Forest, at 2850 ft., 22.viii-3.ix.1952.

In this area endemics should be searched for in shaded fast-running streams and rivers with clear water and gravel bottom, especially above 5000 ft.

The present material contains:

*Aulonogyrus algoensis* Régimbart. 17 specimens. A widespread tropical and subtropical African species occurring from the eastern Cape to Sudan. It is almost eurytopic, living in rivers, streams, lakes and pools. It does not penetrate into the central equatorial rain forest area.

*Dineutus aereus* Klug. 15 specimens. A very widespread African species occurring from the eastern Cape to oases in Sahara and in Arabia. It has been found in all types of freshwater habitats except fast-running stony stretches of rivers and streams (mountain torrents and similar biotopes). It seems to be well adapted to desert and semi-desert conditions and is very abundant in open country with more or less temporary aquatic habitats.

*Orectogyrus pallidiventris* Ochs f. typ. 22 specimens. An Eastern African species inhabiting the rivers of the plains and the lower parts of the mountains. It has been recorded from Sudan and southern Abyssinia, Uganda, Kenya Colony, Tanganyika, Belgian Congo, and Nyasaland. (Records from Zambezi and Mozambique should be confirmed.) It was collected at Semliki in March 1908 by the Adolf Friedrich Expedition.





# 4

## Coleoptera

### Mordellidae and Scraptiidae

(30th Contribution to the Knowledge of Mordellidae and Scraptiidae)

By MARIO E. FRANCISCOLO, D.Sc., F.R.E.S.

Subfamilia MORDELLINAE (Fowler 1912) Franc. 1953

Tribus MORDELLINI (J. B. Smith 1882) Ermisch 1941

Genus **Ophthalmoglipa** Franc. 1952

#### **Ophthalmoglipa aurocaudata** Fairmaire

*Mordella aurocaudata* Fairmaire, Ann. Soc. Ent. France, 66, 1897, p. 145.

*Glipa aurocaudata* Fairmaire, Ann. Soc. Ent. Belg., 49, 1905, p. 128.

*Glipa aurocaudata* (Fairm.) Ermisch, Parc. Nat. Albert, Miss. G. F. De Witte, 1933-35, Fasc. 71, 1950, p. 425.

*Glipa aurocaudata* (Fairm.) Ermisch, Ann. Mus. Roy. Congo Belge, 22, 1952, pp. 19-20.

*Ophthalmoglipa aurocaudata* (Fairm.) Franciscolo, Doriana, I, No. 23, 1952, p. 2.

1 ♀, RUWENZORI RANGE: Semliki Forest, 2850 ft., 22.viii-3.ix.1952, leg. D. S. Fletcher.

This very large and fine species is widely distributed in aequatorial Africa; it is known from Togo, Gabun (Fairmaire), Ashanti, St. Thomé and Prince Islands, Camerun, Congo, Uganda, British East Africa, Haut Uélé, Ubangi (Ermisch and Franciscolo). Another specimen of this species was taken in Semliki Valley, Buamoa Forest and already examined by me in the material collected by S. A. Neave (British Museum Collections).

Tribus MORDELLISTENINI Ermisch 1941

Genus **Mordellistena** Costa 1854

Sub-genus *Mordellistena* s.str.

The following key includes only those species of African *Mordellistena* s.str. having the hind tibial lateral ridges extremely long, running very obliquely with respect to the apical margin, the upper of which is the longest and crosses the entire length of tibia, and in some instances reaches the knee, and having generally a similar type of ridges on at least the 1st and 2nd hind tarsal segments. For the species having short and weakly oblique lateral ridges on hind tibiae and tarsi,



a key has been given in my work on *Mordellidae* and *Scraptiidae* of the Durban Museum (Durban Museum Novitates, in course of printing), namely: *wittei* Pic, *similaris* Ermisch, *simillima* Francisc., *problematica* Francisc., *monardi* Pic, *flavofrontalis* Francisc., *bevisi* Francisc., *fuscocastanea* Ermisch, *schoutedeni* Pic.

KEY TO AFRICAN SPECIES OF *Mordellistena* s.str. HAVING LATERAL RIDGES OF  
HIND TIBIA LONG.

- 1 (2) Elytra exactly 3 times as long as their combined width at base. Head a little longer than wide (as 8:7). Vertex and pronotum reddish yellow, elytra black. Length 3.2 mm. Locality: Belgian Congo (Congo da Lemba, Kunungo). *M. (s.str.) maculaticeps* Pic, 1931
- 2 (1) Elytra at most 2.7 times as long as their combined width at base. Head as wide or a little wider than long. The upper surface of body may be uniformly black, or uniformly coloured, or, if bicoloured, then the elytra also are coloured, at least on their apical third.
- 3 (6) First segment of hind tarsi bearing three oblique but relatively short lateral black ridges. Inner spur of hind tibiae twice as long as the outer one. Underside of two different colours, generally the meta-thorax and abdomen, excluding hypopygium, reddish-orange, the pygidium black.
- 4 (5) Pygidium twice as long as the hypopygium. Pronotum a little wider than long (as 11:9). Basal angles of pronotum acute, angulate. Head and pronotum yellow-brown, elytra of a pale reddish-yellow colour, underside orange-yellow, excluding the mesothorax, metepisterna and hypopygium which are dark-brown, and pygidium black, with a paler brown band at base. Length 3.65 mm. Locality: Belgian Congo (Mongwalu). *M. (s.str.) nigropectoralis* Ermisch, 1952
- 5 (4) Pygidium four times as long as the hypopygium. Pronotum exactly as long as wide. Basal angles of pronotum square, angulate. Head, pronotum and elytra castaneous-brown, underside with meta-thorax and abdomen, excluding hypopygium, orange-red, the remaining parts blackish, pygidium uniformly black. Length 3.8-4 mm. Locality: Parc National Albert, River Rwindi, Lake Edward, Volcan Nyamuragira, Haut Uélé. *M. (s.str.) nigropygidialis* Ermisch, 1952
- 6 (3) First segment of hind tarsi bearing only two relatively short and very oblique lateral ridges. Inner spur of hind tibiae at least  $2\frac{1}{2}$  times as long as the outer one, but generally 3 times, in some instances 4 times as long. Underside uniformly coloured, generally black, in some instances castaneous.
- 7 (16) Basal angles of pronotum acute, rounded or not at their vertices. The upper ridge of hind tibiae in most instances (excluding, perhaps, *M. flavifrons* Erm.) does not reach the knee.
- 8 (15) At least two short oblique ridges on the second segment of hind tarsi. Elytra uniformly black. 4th segment of antennae as long as or longer than the 3rd. Last segment of labial palpi of normal form, generally subovate.
- 9 (14) Head completely black, or with a short margin on clypeus of a clearer colour. Pronotum as long as or shorter than wide at base.
- 10 (13) Ground pubescence of body uniformly grey-yellow, with no particular markings. Head black, only the labrum yellow; vertex exactly as long as wide.
- 11 (12) 3rd segment of antennae a little shorter than the 2nd. 4th segment a little longer than the 3rd; segments 5-10 moderately dentate; 11th segment  $1\frac{1}{2}$  times as long as the 10th; pygidium 4 times as long as the hypopygium; hind legs dark reddish-brown. Length 2.6-3.0 mm. Locality: Ituri. *M. (s.str.) pygmaea* Ermisch, 1952
- 12 (11) 3rd segment of antennae a little longer than 2nd; 4th segment as long as the 3rd, a little thicker; segments 5-10 linear; 11th as long as the 10th; pygidium 2.5 times as long as the hypopygium; hind legs piceous to dark-black. Length 3.5-4.15 mm. Locality: Katanga, Congo, Haut Uélé. *M. (s.str.) congoana* Ermisch, 1952

- 13 (10) Ground pubescence of body dark greyish, bearing on elytra a basal fascia, a periscutellar zone and a sutural line, and a transverse band at middle of elytra, and base of pygidium, of a silvery greyish sheen. Head black, with clypeus having anterior margin yellow, a little wider than long (as 11:10). Length 3 mm. Locality: Parc National Albert, Haut Uélé. *M. (s.str.) fasciolata* Ermisch, 1952
- 14 (9) Head having a large part of the frons reddish yellow. Pronotum longer than wide (as 10:9). Length 2.9–3.4 mm. Locality: Parc National Albert, Udeko, Rwindi, Vitshumbi, Kamande. *M. (s.str.) flavifrons* Ermisch, 1952
- 15 (8) Only one short oblique ridge on 2nd hind tarsal segment. Elytra black, with their apical sixth reddish-yellow. 4th segment of antennae shorter than 3rd. Last segment of labial palpi squarish (very unusual). Length 3.5 mm. Locality: Haut Uélé. *M. (s.str.) luteoapicipennis* Ermisch, 1952
- 16 (7) Basal angles of pronotum square or obtuse. The upper ridge of hind tibiae always reaches the knee.
- 17 (18) Pronotum a little longer than wide (as 10:9); basal angles of pronotum obtuse, and much sharpened at their vertices. Length 2.8–3.4 mm. Locality: Parc National Albert. *M. (s.str.) nigrifrons* Ermisch, 1950
- 18 (17) Pronotum always wider than long; basal angles square.
- 19 (20) All legs uniformly black; antennae entirely black; head completely black, including buccal parts; pygidium  $1\frac{3}{4}$  times as long as the hypopygium; ground pubescence grey-brown; on elytra there is a basal band, a sutural line and a periscutellar zone of silver-whitish pubescence. Length 3.9 mm. Locality: Eala (Belgian Congo). *M. (s.str.) senilis* Ermisch, 1952
- 20 (19) At least the anterior legs coloured, either brown or reddish yellow; antennae reddish yellow at base, brown or black for the remaining segments; pygidium at least 2 to 3 times as long as the hypopygium. Ground pubescence of a uniform colour with no markings or patterns.
- 21 (24) Body black, with the exception of some parts on head. Head shorter than wide. Hind legs uniformly black.
- 22 (23) Head with a large area on frons and jaws yellow. Pygidium 3 times as long as the hypopygium; anterior angles of pronotum rectangulate-rounded. Middle legs black, with the base of femora yellow. Length 3.5 mm. Locality: Transvaal. *M. (s.str.) swierstrai* Francisc., 1954
- 23 (22) Head black, with only a brief margin on frons yellow; pygidium 4 times as long as the hypopygium. Anterior angles of pronotum obtuse, narrowly rounded. Middle legs uniformly dark-brown. Length 3 mm. Locality: Parc National Albert. *M. (s.str.) corvina* Ermisch, 1950
- 24 (21) Body uniformly castaneous, including the anterior part of head. Head as long as wide. Hind legs uniformly castaneous-brown, with some cleared areas on tarsi. Length 3.2 mm. Locality: Ruwenzori Range. *M. (s.str.) fletcheri* sp.n.

***Mordellistena* (s.str.) *fletcheri* sp.n.**

1 ♀, holotype, labelled: UGANDA, Ruwenzori Range, Nyinabitaba, 8650 ft., 7–13.viii.1952, leg. D. S. Fletcher.

Length, mm.: head 0.55, pronotum 0.65, elytra 2.0, total 3.2; pygidium 1.1.

Breadth, mm.: head 0.60, pronotum 0.85, elytra 0.85; pygidium 0.26.

*Form* rather narrow and elongate, strongly parallel-sided, moderately arcuate, normally convex. *Ground colour* uniformly castaneous-brown, tending in some areas, especially on head and pronotum, to a darker brown; labial palpi pale yellow, maxillary palpi and base of antennae of a slightly paler brown; legs of a pale reddish-brown, a little darker on femora; tarsi of all pairs tending to orange yellow; ridges of hind tibiae and tarsi black.

*Pubescence* uniformly pale on all parts of body, with no particular markings or pattern, normally long and decumbent.



*Head* almost equilateral, very dark castaneous-brown, with very feeble bronze sheen; the ratio maximum length-maximum breadth is almost as 1:1. The hind margin forms a very wide and continuous curve, and, seen from the occiput, it appears a little concave, with slightly accentuated sinuosity at middle; the occipital margin runs continuously behind the eyes where it is extremely thin, tempora being almost absent, and forms a very fine temporal edge at the insertion with the jaws. Punctuation very fine, consisting of minute, isolated punctures, with interstices having little impressed longitudinal shagreen.

*Eyes* subcircular, finely granulate and uniformly pubescent, quite reaching the occipital margin; temporal edge only a little protruding; the eyes are very convex on their lower side.

*Maxillary palpi* pale brown, with 4th segment elongately securiform (♀) and with no particular patterns worthy of notice.

*Antennae* reddish-brown at base, black-brown for the remainder, reaching, when folded backwards, the half of the pronotum; for the shape of the segments, see Figure 1.

*Pronotum* uniformly castaneous-brown with the basal margin very finely edged with a pale reddish brown line, with some bronzy sheen under certain lights, wider than long (as 8:6); anterior margin bearing a rather prominent median lobe, and with weak sinuities on each side. Sides of pronotum, seen from above, feebly arched and almost parallel, seen laterally almost straight, with only a feeble convexity at their middle; the very fine margin beginning at sides of the anterior lobe, continues round the anterior angles, where it thickens a little, and then continues on sides up to the middle, where it disappears; anterior angles narrowly obtuse, apically very widely rounded; basal angles rectangulate; basal lobe regular, complete at apex, not sinuated at sides. Punctuation composed of sparsely but regularly distributed file-like impressions, with interstices almost glossy, bearing only a vestige of transverse shagreen. Pubescence uniformly pale, very thick and long.

*Scutellum* castaneous-brown, very small, exactly triangular, heavily file punctured and covered by the same pubescence as the pronotum.

*Elytra* castaneous-brown, rather parallel-sided, densely and uniformly covered by long decumbent pubescence,  $2\frac{1}{3}$  times as long as their combined width at base, normally convex; apices abruptly and separately rounded; the file-like punctuation is rather spaced, each puncture is normally impressed, and interspaces are rather superficially reticulate, with a pattern similar to that found in the elytra of *M. (s.str.) flavofrontalis* Franc.: each file-like impression has a series of small irregularly spreading rays, each of them uniting with rays from neighbouring impressions, the whole giving the appearance of a net with oblong meshes. The pleural margin of elytra is very sinuous, convex at shoulders and concave at middle. Epipleurae normally developed.

*Underside* dark castaneous, the margin of each abdominal sternite with a narrow yellow-brown edge, covered by short and sparse pale pubescence, which is a little longer and thicker at sides near the epipleural margin; the ground sculpture is normally of the file-like type, with traces of transverse shagreen in the interstices. *Metepisterna* very narrow and elongate, at their anterior end only  $1\frac{1}{3}$  times as wide as the epipleurae at that level, the metasternal suture perfectly straight, and the hind margin straight but lying obliquely.

*Pygidium* castaneous-brown, very long and slender, 3 times as long as the hypopygium, a little curved downwards, extremely thin and acuminate, narrowly sulcate at base, densely covered by black setae.

*Legs*: the anterior legs are yellow-brown, with the tarsal segments a little more infusate; anterior tarsi with penultimate segment very narrow, and straightly truncate at apex; middle legs reddish-brown, the tibiae bearing a very small apical spur; penultimate tarsal segment straightly truncate at apex; hind legs with femora castaneous, a little paler than the abdomen, tibiae clearer, tarsal segments almost reddish-brown; the tibiae bear a short subapical ridge, parallel to the apical ridge, and two lateral ridges, the first short and oblique, the second extremely long and oblique, running to near the knee but not quite reaching it; 1st and 2nd tarsal segments with two short and oblique ridges; all ridges on hind legs black; spurs of hind tibiae yellow, the inner spur half the length of the 1st tarsal segment, and 3 times as the outer spur.

*Tarsal ratios*: front tarsi 7:4:3:3:5; middle tarsi 18:6:10:6:8; hind tarsi 24:14:10:10.

***Mordellistena* (s.str.) *similaris* Ermisch, 1952**

*Mordellistena* (s.str.) *similaris* Ermisch, Ann. Mus. Roy. Congo Belge, 22, 1952, pp. 73-74.

♂: KILEMBE, 4500 ft.; UGANDA, Ruwenzori Range, xii.1934-i.1935, B.M. E. Afr. Exp., F. W. Edwards (B.M. 1935-203).

This species has been originally described from Haut Uélé, Moto and Watsa. This is the second capture recorded.

***Mordellistena* (s.str.) *schoutedeni* (Pic, 1931) Ermisch, 1950**

*Mordellistena schoutedeni* Pic, Rev. Zool. Bot. Afr., 21, 1931, p. 46.

*Mordellistena* (s.str.) *schoutedeni* (Pic 1931) Ermisch, Explor. du Parc Nat. Albert—Miss. G. F. de Witte (1933-1935), fasc. 71, 1950, pp. 44-46.

♀: KILEMBE, 4500 ft.; UGANDA, Ruwenzori Range, xii.1934-i.1935, B.M. E. Afr. Exp., F. W. Edwards (B.M. 1935-203).

It is one of the most common species in the highlands of Haut Uélé, Parc National Albert, Uganda. It has never been recorded from Ruwenzori Range.

**Subgenus *Pseudomordellina* Ermisch, 1952**

As no key has been given yet to distinguish the *Pseudomordellina* occurring in Africa, I provide one below which also will enable the placing of *P. semlikiana* sp.n. in relation to its closely allied species.

**KEY TO AFRICAN SPECIES OF *Mordellistena* SUBGENUS *Pseudomordellina* Erm.**

- 1 (8) Body of two different colours: generally, the difference affects the head and the body, in that the head may be black, and the remaining parts reddish, or vice versa.
- 2 (7) Elytra 2.3-2.6 times as long as their combined width at base. The upper lateral ridge of the hind tibiae reaches the knee. Anterior and middle legs pale yellow-brown, or dark brown. Head dark reddish or dark brown. Spur of hind tibiae yellow.
- 3 (6) 4th segment of antennae longer than the 3rd. The single spur of hind tibiae is more than half the length of the first hind tarsal segment. Length above 3.5 mm.



- 4 (5) Body pale rust-red, head and pygidium darker; underside pale rust-red, with abdomen darker. 3rd segment of antennae three-fifths length of 2nd; 4th segment a little thicker and longer than 3rd; segments 5-10 longer than 4th; 11th one and one half times as long as 10th. Legs uniformly pale rust-reddish. Elytra 2.3 times as long as combined width at base. The pubescence of the upper surface is yellow, on head pale reddish-yellow. Length 3.9 mm. Locality: Haut Uélé.  
*M. (P.) piciventris* Ermisch, 1952
- 5 (4) Body dark reddish-brown, head dark brown; underside uniformly piceous brown; 3rd segment of antennae as long as 2nd; 4th segment one and one-half times as long as 3rd; much thicker than the latter; segments 5-10 as long and as wide as 4th; 11th one-third longer than 10th. Anterior and middle tibiae reddish-brown, tarsi pale yellow. Elytra  $2\frac{1}{2}$  times as long as combined width at base. Upper surface covered by uniform pale yellow-greyish shining pubescence. Length 3.7 mm. Locality: Natal.  
*M. (P.) zululandiae* Franciscolo, 1954
- 6 (3) 4th segment of antennae two-thirds length of 3rd. The single spur of hind tibiae exactly half length of 1st tarsal segment. Head reddish-black, the remaining parts of body black. Length 2.4 mm. Locality: Belgian Congo.  
*M. (P.) luteicornis* Ermisch, 1952
- 7 (2) Elytra three times as long as combined width at base; the upper lateral ridge of the hind tibiae does not reach the knee, and terminates at about one-third of the tibial length from it. Anterior and middle legs, and hind legs including also tibial spur, black. Head black, the remaining parts of body reddish. Length 4.4 mm. Locality: Belgian Congo.  
*M. (P.) atrocephala* Ermisch, 1952
- 8 (1) Ground colour of body entirely uniform, either black, brown, or other colour.
- 9 (10) Ground colour of body uniformly pale castaneous, only along the suture of elytra a slightly paler line. Upper lateral ridge of hind tibiae not reaching the knee, but terminating a little before it, reaching the lower side of tibia. Anterior angles of pronotum, seen laterally, definitely square, amply rounded at vertex. Basal lobe of pronotum widely truncate. Pubescence of scutellum much brighter than that of the rest of the upper surface. Length 3.7 mm. Locality: Semliki Valley.  
*M. (P.) semlikiana* sp.n.
- 10 (9) Ground colour of body uniformly black. Upper lateral ridge of hind tibiae reaching the knee. Anterior angles of pronotum distinctly or more or less widely obtuse, rounded at vertex. Basal lobe of pronotum normally arched. Pubescence of scutellum of same brightness as the surrounding parts.
- 11 (14) Length less than 3 mm. Spurs of hind tibiae yellow. Antennae barely reaching the base of pronotum. Legs not uniformly black. Antennae not uniformly black; their 4th segment as long as the 3rd.
- 12 (13) Ground pubescence of two colours: on head and pronotum sericeous yellow, on elytra dark; elytra 2.7 times as long as combined width at base; pygidium two and one third times as long as hypopygium; antennae uniformly yellow, gradually darkened towards the apex. Legs uniformly dark-brown. Spur of hind tibiae two-thirds length of 1st hind tarsal segment. Basal angles of pronotum square. Head as long as wide. Length 2.35 mm. Locality: Belgian Congo (Rutshuru).  
*M. (P.) divergens* Ermisch, 1952
- 13 (12) Ground pubescence of one colour (ash-grey); elytra 3 times as long as combined width at base; pygidium 3 times as long as the hypopygium; antennae orange-yellow at base, and piceous brown from the 5th segment on; anterior legs yellow-brown, middle dark castaneous, posterior legs piceous black. Spur of the hind tibiae half length of 1st segment of hind tarsi. Basal angles of pronotum moderately acute. Head longer than wide (as 12:11). Length 2.7 mm. Locality: Belgian Congo (Rwindi).  
*M. (P.) unispinosa* Ermisch, 1950
- 14 (11) Spur of hind tibiae, antennae and all the legs, uniformly black. Antennae a little surpassing the base of pronotum. 4th segment of antennae one and one-half times longer than 3rd. Length 4.15-4.5 mm. Locality: Belgian Congo (Lukunga).  
*M. (P.) longipennis* Ermisch, 1952

**Mordellistena (Pseudomordellina) semlikiana** sp.n.

1 ♀, holotype, labelled: RUWENZORI RANGE, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, leg. D. S. Fletcher.

This new species has one unusual feature, amongst all the *Pseudomordellina* known to occur in Africa (at present seven species are recorded with certainty in this subgenus), for it has the anterior angles of pronotum exactly rectangular though rounded, whereas all other species have more or less obtuse anterior angles; it falls in the group having the body uniformly coloured, either black or otherwise, and amongst this group it will be easily recognized for it has the upper ridge, the longest, of the hind tibiae, not reaching the knee, but stopping short of it at about a quarter of the tibial length. This same feature, in the species having a bicoloured body, is met also in *M. (Pseud.) atrocephala* Ermisch.

Length, mm.: head 0.60, pronotum 0.7, elytra 2.4, total 3.7; pygidium 0.8.

Breadth, mm.: head 0.75, pronotum 1.1, elytra 1; pygidium 0.20.

*General form* narrow, elongate, rather parallel-sided, normally arcuate, moderately narrowed posteriorly. *Ground colour* uniformly brown, buccal parts yellow, a narrow line along the base of pronotum of a paler brown colour, as well as a narrow sutural line on elytra; antennae pale brown at base, the remainder darker; all legs uniformly dark yellow-brown. Spurs of hind tibiae yellow. Ridges on hind tibiae and tarsi black. *Pubescence* uniformly pale, with some brighter sheen along the suture and on scutellum.

*Head* with very weak metallic sheen, almost as long as wide, with the posterior margin, seen from above, widely arched, with no protuberance on the occiput; seen from the occiput, almost flat, with a small concavity at middle; puncturation fine, little impressed, spaced; interstices with vestiges of a transverse strigosity. Pubescence pale, sparsely and regularly distributed.

*Eyes* suboval, not emarginate, finely granulated and regularly hairy; temporal margin reduced to a narrow edge, which does not protrude at vertex; temporal angle obtuse, briefly rounded at vertex.

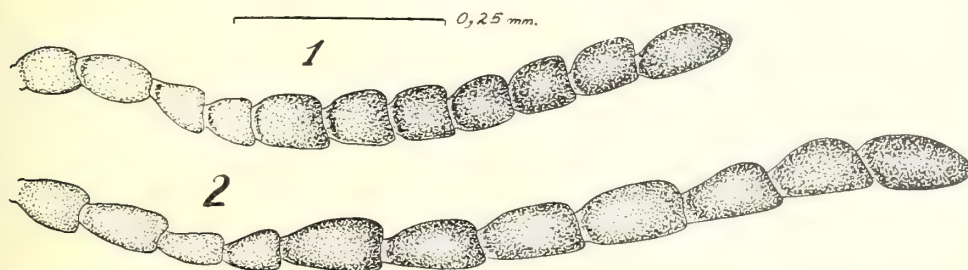


FIG. 1. *Mordellistena (s.str) fletcheri* sp.n. Antenna

FIG. 2. *Mordellistena (Pseudomordellina) semlikiana* sp.n. Antenna

*Maxillary palpi* yellow, with last segment darker, elongately securiform (♀); its inner side shorter than the outer.



*Antennae* brown, clearer at base; folded backwards, they reach the base of pronotum; see Figure 2.

*Pronotum* brown, with a narrow margin at base of a pale reddish brown, one and one-half times as wide as long, rather parallel-sided, little convex; the ground sculpture is of the usual file-like type, rather close but little impressed; the interstices are shagreened with a reticulated pattern. Pubescence uniformly pale, short and closely distributed; anterior margin of pronotum normally arched, bearing a narrow and prominent medial lobe; the margination of the anterior side is rather wide at the level of front angles, and continues along the sides disappearing at about their middle; anterior angles square, but rather widely rounded at vertex; sides, seen from above, almost straight, seen laterally, amply concave; basal angles square, pointed at vertex; base strongly bisinuate, bearing a large and prominent medial lobe, which is flat truncate at apex. *Scutellum* triangular, brown, with shining pale pubescence.

*Elytra* brown, bearing along the suture a thin yellow-brown line, two and one-quarter times as long as combined width at base; pubescence pale yellow, long, closely distributed, with a brighter line along the suture, and another brighter line on shoulders which runs towards the apex. Sculpture of the file type, with interstices obsoletely shagreened. Apices abruptly and separately rounded. Sides, seen from above, very feebly convergent backwards, rather convex, seen laterally, with moderate concavity at middle; epipleurae rather thin, almost obsolete at the level of the posterior margin of metepisterna.

*Metepisterna* dark brown, one and one half times as wide at the anterior margin as the epipleurae at their middle, with the metasternal side quite straight and the metacoxal side straight cut; they are almost four times as long as wide anteriorly. *Underside* uniformly dark brown, only paler along the apical margin of each urosternum, densely covered with pale whitish pubescence, normally punctured and shagreened.

*Pygidium* of a much darker brown colour than other parts, clearer at base, slender, acuminate, feebly arched downwards, briefly sulcate at sides in its basal fifth, two and one-half times as long as the hypopygium, which is dark brown, regularly terminated at apex (♀).

*Legs* uniformly yellow-brown, with apical spinulae and ridges on posterior tibiae and tarsi, black; posterior tibiae with a very small and short preapical ridge, more or less parallel to the apical margin, which is strongly oblique, a short and oblique lateral ridge and a second one which is very long, crossing obliquely almost the entire length of tibia, and terminating about one-quarter of the tibial length from the knee; the single yellow spur of hind tibiae is half the length of the 1st tarsal segment; 1st and 2nd tarsal segments with two moderately long, extremely oblique lateral ridges, on the 1st segment in its second half, and on the 2nd segment one near the apex and the other near the insertion with the 1st.

*Tarsal ratios:* 5:4:3:2:5; 15:10:8:4:8; 22:14:12:13.

# 5

## Coleoptera

### Cantharidae and Malachiidae

(10th Contribution towards the Knowledge of African Malacodermata)

By W. WITTMER

(Herrliberg-Zurich)

#### CANTHARIDAE

*Silidius ruwenzorensis* var. *hancocki* Pic. Nyamelaju, 10,530 ft., 14-19.vii.1952, 3 specimens.

*Silidius* spec. ♀ prope *ruwenzorensis* var. *hancocki* Pic. Nyinabitaba, 8650 ft., 7-13.vii.1952, 1 specimen. Coloured like *hancocki*, abdomen completely black, including last segments. Antennal joint 3 more than twice as long as joint 2, in *hancocki* joint 3 only slightly longer than 2. Prothorax broader, sides more strongly narrowed towards base.

*Silidius* spec. ♀ prope *rufotestaceus* Pic. Nyinabitaba, 8650 ft., 7-13.vii.1952, 1 specimen.

*Silidius denominandus* Pic. Nyinabitaba, 8650 ft., 7-13.vii.1952, 1 specimen ♂.

*Silidius* spec. ♀. Lamia Valley, 11,900 ft., 30-31.vii.1952, 1 specimen.

#### MALACHIIDAE

*Apalochrus azureus* Er. Bugoye, 4500 ft., 8.viii.1952, 3 specimens. Semliki Forest, 2850 ft., 22.viii.-3.ix.1952, 2 specimens. Bundibugyo, 3440 ft., 22.viii.-3.ix.1952, 1 specimen.

*Apalochrus patruelis* Champ. Semliki Forest, 2850 ft., 22.viii.-3.ix.1952, 5 specimens; Bundibugyo, 3440 ft., 22.viii.-3.ix.1952. This species was described by Champion from specimens captured in the Belgian Congo. The material from the Ruwenzori has been compared with the types in the British Museum and found identical, except the basal joints of the antennae which are darker than in the type. No figures of the anterior and intermediate tibiae of the male having been given by the author, I believe the following illustrations made from the Ruwenzori specimens will help to recognize this species.



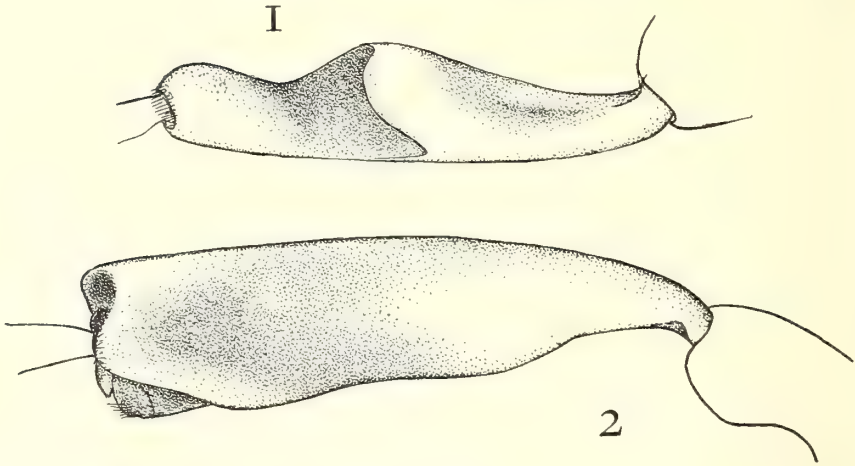


FIG. 1. *Apalochrus patruelis* Champ. ♂. Anterior tibia

FIG. 2. *Apalochrus patruelis* Champ. ♂. Intermediate tibia

# 6

## Coleoptera

### Erotylidae

par A. VILLIERS

#### Subfam. **Cladoxeninae** et **Languriinae**

La petite collection étudiée ici comporte 13 exemplaires, répartis en 8 espèces; elle ne représente donc, sans aucun doute, qu'une très faible partie de la faune des *Languriinae* et *Cladoxeninae* dont la richesse est considérable dans les régions voisines similaires, notamment au Kivu. Outre l'espèce nouvelle décrite plus loin, l'intérêt de cette collection réside dans le fait qu'elle montre qu'un certain nombre d'espèces étendent leur aire vers l'Est, plus loin qu'on le pensait.

#### Subfam. CLADOXENINAE

##### Genre **Microlanguria** LEWIS

*Microlanguria* LEWIS, 1883, Journ. Linn. Soc. Lond., zool., 17, 1883, p. 345.—VILLIERS, 1940, Rev. Fr. Ent., T. 7, fasc. 3, p. 119 (*synopsis*).—VILLIERS, 1952, Explor. Parc Nat. Upemba, fasc. 15, p. 40 (*synopsis*).

##### **Microlanguria castanea** (KRAATZ)

*Platycladoxena castanea* KRAATZ, 1899, Deutsche Ent. Zeit., p. 312.—*Microlanguria castanea* VILLIERS, 1940, *loc. cit.*, p. 122.

UGANDA: Ruwenzori Range, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, D. S. Fletcher, 4 exemplaires.

Espèce largement répandue: Côte d'Ivoire, Cameroun, Gabon, Congo français, Oubangui-Chari, Congo belge.

##### Genre **Penolanguria** KOLBE

*Penolanguria* KOLBE, 1897, Käfer D. Ostafrika, p. 116.—VILLIERS, 1940, Rev. Fr. Ent., T. 7, fasc. 3, p. 125 (*synopsis*).—VILLIERS, 1952, Explor. Parc Nat. Upemba, fasc. 15, p. 38 (*synopsis*).

##### **Penolanguria nigerrima** KRAATZ

*Penolanguria nigerrima* KRAATZ, 1899, Deutsche Ent. Zeit., p. 315.—VILLIERS, 1940, *loc. cit.*, p. 127.



UGANDA: Ruwenzori Range, Kilembe, 4500 ft., xii.1934-i.1935, B.M. East Afr. Exp., *F. W. Edwards*, 1 exemplaire.

Espèce très commune, se récoltant le plus souvent sur les fleurs et très largement répandue du Cameroun à l'Afrique orientale.

Genre **Paracladoxena** FOWLER

*Paracladoxena* FOWLER, 1886, Trans. Ent. Soc. Lond., p. 310.—VILLIERS, 1940, Rev. Fr. Ent., T. 7, fasc. 3, p. 131 (*synopsis*).

**Paracladoxena arrowi** VILLIERS

*Paracladoxena arrowi* VILLIERS, 1940, *loc. cit.*, p. 134.

UGANDA: Kigezi District, Mt. Sabinio, 7000 ft., 29.xi.1934, *F. W. Edwards*, 1 exemplaire.

Espèce connue jusqu'ici du Kivu, très voisine de *P. steelei* ARROW du Mont Cameroun avec lequel elle avait été confondue par ARROW.

Subfam. LANGURIINAE

Genre **Stenolanguria** FOWLER

*Stenolanguria* FOWLER, 1885, Trans. Ent. Soc. Lond., p. 387.—VILLIERS, 1945, L'Abeille, T. 37, p. 37 (*synopsis*).

**Stenolanguria tricolor** FOWLER

*Stenolanguria tricolor* FOWLER, 1885, *loc. cit.*, p. 388.—VILLIERS, 1945, *loc. cit.*, p. 39.

UGANDA: Ruwenzori Range, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, *D. S. Fletcher*, 1 exemplaire.

Espèce commune, largement répandue: Nigeria, Cameroun, Oubangui-Chari, Gabon, Guinée espagnole, Congo belge.

**Stenolanguria gorhami** FOWLER

*Stenolanguria gorhami* FOWLER, 1885, *loc. cit.*, p. 388.—VILLIERS, 1945, *loc. cit.*, p. 41.

UGANDA: Ruwenzori Range, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, *D. S. Fletcher*, 2 exemplaires.

Espèce banale, très répandue: Togo, Cameroun, Gabon, Guinée espagnole, Congo belge.

Genre **Barbaropus** GORHAM

*Barbaropus* GORHAM, 1887, Proc. Zool. Soc. Lond., p. 360.—VILLIERS, 1945, L'Abeille, T. 37, p. 44 (*synopsis*).—VILLIERS, 1952, Explor. Parc Nat. Upemba, fasc. 15, p. 17 (*synopsis*).

**Barbaropus dubius** (FOWLER)

*Languria dubia* FOWLER, 1885, Trans. Ent. Soc. Lond., p. 385.—*Barbaropus dubius* VILLIERS, 1945, *loc. cit.*, p. 55.

UGANDA: Ruwenzori Range, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, D. S. Fletcher, 1 exemplaire de petite taille (8 mm.).

Genre **Anadastus** GORHAM

*Anadastus* GORHAM, 1887, Proc. Zool. Soc. Lond., p. 362.—VILLIERS, 1945, L'Abeille, T. 37, p. 58 (synopsis).—VILLIERS, 1952, Explor. Parc Nat. Upemba, fasc., 15, p. 33 (synopsis).

**Anadastus edwardsi** sp.n. (Figure 1)

UGANDA: Kigezi District, Kanaba Gap, 7500 ft., F. W. Edwards, 1 seul exemplaire, en très mauvais état (antennes mutilées) 'taken in *Engleromyces goetzei* growing on Bamboo'. Holotype au British Museum (Natural History).

Long. 5,25 mm.—Tête et pronotum brun rouge. Scutellum noir. Elytres brun fauve, la suture légèrement assombrie derrière l'écusson, mais sans macule nette. Pattes noires. Face ventrale noir de poix, le dessous du prothorax et de la tête rougeâtres.

Tête assez large, faiblement convexe, finement, éparsement mais régulièrement ponctuée. Yeux assez petits; espace interoculaire cinq fois aussi large qu'un œil vu de dessus.

Pronotum convexe, beaucoup plus finement mais plus densément ponctué que la tête, de peu plus large que long (70-67), sa plus grande largeur un peu en avant, côtés fortement convergents et bisinués en arrière. Angles antérieurs arrondis et effacés, angles postérieurs subaigus. Base fortement sinuée et lobée en arrière devant le scutellum. Fovéoles basales fortement marquées, assez longues, étroites, légèrement arquées.

Scutellum transverse, concave, finement microréticulé, imponctué.

Elytres assez courts, fortement convexes, fortement déprimés en avant, subparallèles, tronqués à l'apex, assez fortement mais peu profondément séries-ponctués.

Dans le tableau synoptique des espèces que j'ai publié en 1952 (*loc. cit.*, p. 33), *A. edwardsi* vient se ranger avec *A. jeanneli* VILLIERS. Les deux espèces se distingueront à l'aide du tableau suivant

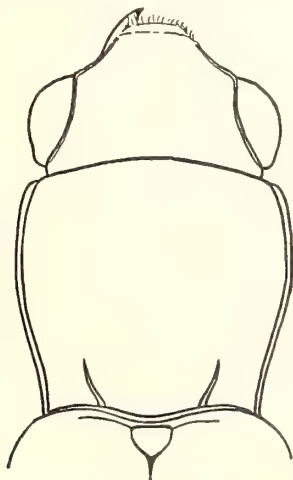


FIG. 1. *Anadastus edwardsi*, sp.n., holotype, avant-corps.



*A. jeanneli* VILLIERS

1. Tête et pronotum flaves comme les élytres.
2. Pronotum médiocrement convexe un peu plus large que long (1,10-1).
3. Scutellum flave.
4. Longueur: 7 mm.

*A. edwardsi* sp.n.

1. Tête et pronotum brun rouge, élytres roux fauve.
2. Pronotum fortement convexe de peu plus large que long (1,04-1).
3. Scutellum noir.
4. Longueur: 5,25 mm.

Genre **Caenolanguria** GORHAM

*Caenolanguria* GORHAM, 1887, Proc. Zool. Lond., p. 361.—VILLIERS, 1945, L'Abeille, T. 37, p. 225 (*synopsis*).—VILLIERS, 1952, Explor. Parc Nat. Upemba, fasc. 15, p. 37 (*synopsis*).

**Caenolanguria burgeoni** VILLIERS

*Caenolanguria burgeoni* VILLIERS, 1942, Explor. Parc Nat. Albert, fasc. 36, p. 16 et 17.

UGANDA: Ruwenzori Range, Semliki Forest, 2850 ft., 22.viii-3.ix.1952, D. S. Fletcher, 2 exemplaires.

Espèce connue seulement jusqu'ici, du Congo belge (Kivu et Ruanda).

## Diptera

Culicidae Subfamily Dixinae, Anisopodidae and  
Ptychopteridae

By PAUL FREEMAN

Representatives of these three groups were collected by the British Museum East African Expedition 1934-5 but none were taken by the Second Expedition in 1952. This account is included in the second series of Reports for administrative reasons as explained in the Introduction. The material taken by Dr. Edwards is very rich and has added greatly to our knowledge of each of these groups.

## Culicidae Subfamily Dixinae

The British Museum East African Expedition 1934-5 collected 28 specimens belonging to two species of this little collected group, increasing the African material in the Museum to over 70 specimens. A revision of the African species of the subfamily has been prepared and has been published elsewhere (Freeman, 1956).

***Dixa camerounensis* Alexander**

*Dixa (Paradixa) camerounensis* Alexander, 1926, Insec. Inscit. Menstr., 14: 11.

This is the palest of the African species, in many specimens the thorax is yellow with the stripes only slightly darker; the 'cord' or line of cross-veins is more transverse than in other species.

RUWENZORI RANGE: Kilembe, 4500 ft., 2 ♂; Namwamba Valley, 6500 ft., 1 ♂.

***Dixa claripennis* Séguy**

*Dixa claripennis* Séguy, 1938, Miss. scient. Omo, 4: 322.

A much darker species than *camerounensis*, mesonotal stripes dark brown, thoracic pleura dark and usually with two narrow pale bands.

KENYA: Aberdare Range, Mt. Kinangop, 8000-10,000 ft., 4 ♂, 3 ♀. x.1934: Mt. Elgon, Kapretwa, 6500 ft., 1 ♀; Mt. Elgon, Forest Zone, 8000 ft., 1 ♂, 1 ♀; Mt. Elgon, Heath Zone, 10,000-11,000 ft., 10 ♂, 2 ♀. UGANDA: Ruwenzori Range, Bwamba Pass (west side), 5500-7500 ft., 1 ♂, 2 ♀.



## Anisopodidae

The described species of the family Anisopodidae include four species of *Anisopus*, five of *Olbiogaster* and three of *Mesochria* from Africa south of the Sahara (Ethiopian Zoogeographical Region). The collection made by the East African Expedition 1934-5 contains 25 specimens of *Anisopus* and, taken in conjunction with other material in the British Museum has enabled me to synonymize two of the known African species.

### *Anisopus annulicornis* Edwards

*Anisopus annulicornis* Edwards, 1928, Gen. Insect. fasc., 190:16.

*Anisopus dibaphus* Edwards, 1934, Ann. Mag. nat. Hist. (10), 14:324 (**syn. nov.**).

When describing *dibaphus*, Edwards remarked that it was closely related to *annulicornis* but could be distinguished by the slightly darker antennal segments 2-3, the presence of a round brown spot on the front coxa, the presence of a yellow subterminal ring on the hind femur of the male, the less hairy wings and by small (unspecified) hypopygial differences. The British Museum (Nat. Hist.) now contains nearly 80 specimens which show all these characters in various combinations.

Segments 2-3 of the antennae vary from almost yellow to black; the front coxae may be yellow, partially brown, with a round brown spot, or completely brown; the male hind femur may have a clear yellow ring, or a ring distinguishable with difficulty or the ring may be quite absent; the hairiness of the wing membrane is variable. The hypopygium is equally variable in style shape but not so variable in the shape of the spiny plates at the base of the aedeagus. Specimens with styles resembling those of the type series of *annulicornis* may have the colour of *dibaphus*, and specimens with styles like the holotype of *dibaphus* may, in some or all other respects, resemble *annulicornis*. From an examination of species from other Zoogeographical Regions it appears that the best genital characters are to be found in the structure of the supporting plates at the base of the aedeagus; these plates lie between the styles and were probably not examined by Edwards because the Museum collection contains no mounts of the hypopygia of this species made by him. The only possible conclusion is that there is a single species and not two.

The holotype male and paratypes of *dibaphus* are in the British Museum; the holotype female of *annulicornis* is in the Berlin Museum, but paratypes including a male are in the British Museum.

Distribution. CAMEROONS: Buea and Johann-Albrechtshöhe, paratypes of *annulicornis*; Mt. Cameroon, Onyanga, 8100 ft., 1 ♀, 24.i.1932 (*M. Steele*). SÃO THOMÉ: type series of *dibaphus*. BELGIAN CONGO: Ruanda Urundi, Mubinga, 1 ♀ (*J. Walkiers*). UGANDA: Kampala, 3 ♂, 2 ♀, viii.1939 (*H. Hargreaves*); Fort Portal, 1 ♀, ix.1933 (*H. Hargreaves*); Kalinzu Forest, 3 ♂, 1 ♀ (*T. H. E. Jackson*); Kigezi Distr., Mt. Sabinio, 11,000 ft., 1 ♀, xi.1934 (*F. W. Edwards*); Ruwenzori Range, xii.1934-i.1935: Mpanga Forest, 4000 ft., 1 ♂, 4 ♀; Kilembe, 4500 ft., 2 ♂, 1 ♀; Namwamba Valley, 6500 ft., 2 ♂, 6 ♀; Mobuku Valley, 7300 ft., 1 ♂; Mr. Karangora, 8000-9000 ft., 1 ♂ (all coll. *F. W. Edwards*). KENYA: Chyulu Hills, 10 ♂, 19 ♀, vi.1938 bred ex *Conophyringia* (*V. G. L. van Someren*); Kisii, 1 ♀ (*Symes and Hopkins*); Aberdare Range, Thompson's Falls, 7500 ft., 1 ♀, x.1934 (*F. W. Edwards*); Mt. Elgon, Forest Zone, 8500 ft., 1 ♂, 1 ♀, ii.1934 (*F. W. Edwards*). TANGANYIKA: holotype of *annulicornis*. S. RHODESIA: Umtali Distr., Vumba Mts.,

1 ♂, 2 ♀, iii.1938, ex decaying fruit of *Conophyringia* (A. Cuthbertson). CAPE PROVINCE: Katberg, 4000 ft., 1 ♀, i.1933 (R. E. Turner).

## Ptychopteridae

Nine species of Ptychopteridae, all in the genus *Ptychoptera*, have been described from the mainland of Africa south of the Sahara. Alexander (1956:79) refers to a species, *P. matongoensis* Alexander, of which I have been unable to trace the original description but I understand from Professor Alexander that it is in the press and he has been kind enough to lend me a copy of the description. So far as I have been able to discover, all were described from single specimens, four of the nine from males and five from females. The main differences used in the separation of the species have been colour and small venational characters; the hypopygium has been figured only for *P. basilewskyi* Alexander, although some description without figures has been made of this part for *P. camerounensis* Alexander and *schoutedeni* Alexander.

The species of the genus *Ptychoptera* are very uniform in appearance and are often variable in venational and colour characters. The only reliable specific characters lie in the structure of the male hypopygium and it is desirable for this to be figured or at any rate described in any description of a new species: it is unfortunate that so few have been described for the African species. However, F. W. Edwards collected 12 specimens whilst on the British Museum Expedition to East Africa, including both sexes, that is, more specimens than have previously been known of all nine definite species together, which has helped greatly in the recognition of the species.

Six of Edwards's specimens can be placed easily into *P. africana* Alexander and they agree well with the holotype in colour and pattern; the males also have enabled me to recognize *P. schoutedeni* as a synonym from the description given of the male hypopygium of that species. The other six which again include both sexes and were all collected in the same locality, show colour variation which proves that there are fewer species in the African fauna than was previously thought; I am placing these specimens under *P. uelensis* Alexander. The final result has been to reduce the number of known African species to four. *P. matongoensis*, again based on females, may prove to be a valid species, and I am offering a key to these five including details of the male hypopygia where known.

### ***Ptychoptera africana* Alexander (Figure 1a)**

*Ptychoptera africana* Alexander, 1920, Entomologist, 53:101-2.

*Ptychoptera schoutedeni* Alexander, 1956, Bull. Brooklyn ent. Soc., 51:76 (**syn. nov.**).

A distinctive species, body largely shining black, head and thoracic tergum with metallic reflections, pleura yellow; abdomen with segment 1 yellow basally, 2 either mostly yellow on basal half or with a yellow ring in basal half, 3 yellow on basal half, female with ovipositor and tip of abdomen yellow, male with hypopygium partially yellowish. Wings with narrow brown stripe along costa, apex broadly brown, cord with a brown stripe, base of wing with a brown spot; wing markings clear-cut and not appearing to be variable.

The male hypopygium (Figure 1a) is characteristic: cerci straight, tapering and pointed at the tip, rather polished at the apex, styles with a short upper arm carrying strong bristles and a longer lower spatulate arm, medially with a broad pad as shown; IXth sternite strongly produced



ventrally, two-lobed below and with paired capitate processes laterally carrying dense brushes of fine hairs.

I am treating *schoutedeni* as a synonym because the only difference lies in the paler colour of parts of the thorax, the styles and cerci as described by Alexander being exactly similar to those of Edwards's specimens. In the holotype of *africana* there is some indication of paleness on some of these parts giving additional evidence that this is not sufficient for specific separation. In the original description *schoutedeni* is not compared with *africana* which is the species it most closely resembles but with *hopkinsi* which is a synonym of the next species.

*P. matongoensis* Alexander appears from the manuscript description which Professor Alexander has lent me, to be closely allied, but as only females are known little can be added until males are available.

The holotype female of *africana* is in the British Museum (Nat. Hist.).

Distribution. NIGERIA: Ilesha, holotype. UGANDA: Ruwenzori Range, Kilembe, 4500 ft., 4 ♂, xii.1934-i.1935 (F. W. Edwards); Budongo Forest, 1 ♂, 1 ♀, ii.1935 (F. W. Edwards). The type locality of *schoutedeni* is BELGIAN CONGO: Volcan Karissimbi.

### ***Ptychoptera uelensis* Alexander (Figure 1b)**

*Ptychoptera uelensis* Alexander, 1928, Rev. Zool. Bot. afr., 16:25.

*Ptychoptera hopkinsi* Edwards, 1932, Styllops, 1:99 (**syn. nov.**).

*Liriope ghesquieri* Collart, 1935, Bull. Mus. R. Hist. nat. Belge, 11, no. 3:1 (**syn. nov.**).

*Ptychoptera basilewskyi* Alexander, 1955, Rev. Zool. Bot. afr., 36:267 (**syn. nov.**).

*Ptychoptera stuckenbergi* Alexander, 1955, Bull. Brooklyn ent. Soc., 51:78 (**syn. nov.**).

There are six specimens of this species in Dr. Edwards's material, five being dark in colour with metallic blue thoraces. The colour and wing pattern of these five agree well with the description

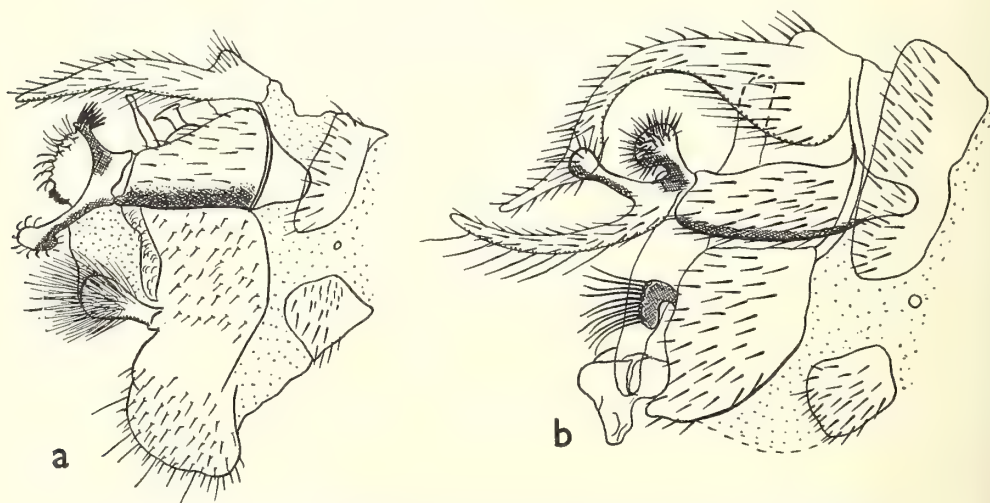


FIG. 1. Male hypopygia of *Ptychoptera* in lateral aspect. (a) *P. africana*; (b) *P. uelensis*.

of *uelensis* and I have no hesitation in identifying them as this species. Some of them have the pale lacunae in the wing markings described by Collart in *ghesquierei* and there is also some variation in the length of the cross-vein *r*; the length of the petiole of  $R_{2+3}$  and  $R_{4+5}$  is too variable to be of value as a specific character and the same applies to the palp colour. For these reasons I am considering *ghesquierei* to be a synonym of *uelensis*.

In the description of *basilewskyi*, Alexander separated it from *uelensis* and *ghesquierei* by colour and venational characters. The type is a male, whereas those of the other two are females; in the male the abdomen is normally paler and with more yellow markings. The hypopygium as figured by Alexander is similar to that of Edwards's specimens and in other ways it is obvious that they belong to the same species.

The sixth specimen collected by Edwards is a male, structurally identical with the others and collected in the same locality, but the thorax is orange with the scutellum and two large spots behind the shoulders black, also the abdomen has yellow on segments 1, 2, 3 and 4. This is clearly the opposite sex of the specimen described as *hopkinsi* which, as it is structurally identical with *uelensis*, I am regarding only as a colour variety. The thorax of the male has a metallic glint and it is possible that the specimen was captured before it had developed its full colours. *P. stuckenbergi* was described from a single female with mainly orange thorax marked with black on the praescutum and parascutella; the wing markings are similar to *ghesquierei*. Unfortunately Alexander does not compare the holotype with *hopkinsi*, but the differences between the two in body colour are so slight that there is no difficulty in recognizing *stuckenbergi* as yet another specimen of this pale form and placing it as a synonym of *uelensis*.

*P. uelensis* may readily be distinguished from *P. africana* by the structure of the male hypopygium (Figure 1b); the cerci are long, downcurved and with a slight swelling near the tip; the styles are three-branched and quite different in appearance from *africana*; the IXth sternite is much less produced ventrally and the lateral lobes bear about twelve long stout black bristles; the aedeagus is also quite different. Other differences lie in the more poorly developed wing pattern and the thoracic pleura which are black in most specimens (not in the pale *hopkinsi* form).

Distribution. UGANDA: Fort Portal, holotype female of *hopkinsi*; Ruwenzori Range, Kilembe, 4500 ft., 3 ♂, 3 ♀, xii.1934-i.1935 (F. W. Edwards). The type locality of *uelensis* is BELGIAN CONGO: Haut Uele, Yebo Moto; of *ghesquierei* BELGIAN CONGO: Eala; of *basilewskyi* URUNDI: Bururi; of *stuckenbergi* s. RHODESIA: Rhodes-Inyanga National Park.

# KEY TO SPECIES OF *Ptychoptera* MEIGEN FROM AFRICA SOUTH OF THE SAHARA, EXCLUDING MALAGASY SUBREGION

1. Thorax entirely orange, without any dark markings; abdomen, at least of male, yellowish orange with a mid-dorsal brownish black line (South Africa)\* . . . . . *capensis* Alexander, 1917  
Thorax either mostly black or metallic blue-black, or orange with black spots dorsally; abdomen darker, yellow markings as rings . . . . . 2
2. Thoracic pleura yellow, notum black; wings with clear-cut dark markings, including costal margin, entire apex, cord and a basal spot, male hypopygium as in Figure a . . . . .  
*africana* Alexander, 1920 and *matongoensis* Alexander, m.s.  
Thoracic pleura usually at least partially blackish, but if orange then notum not entirely black; wing markings more indistinct, costal margin brownish yellow, apex often smoky or almost clear, cord usually with fairly distinct cross band . . . . . 3

3. Abdomen orange, segments 1-5 ringed at apices with brownish black (female not known); styles of male hypopygium elongate, cylindrical, slightly curved, tips blackened, basally with small tooth on inner face (Cameroons; copied from original description) . . . . . *camerounensis* Alexander, 1921

Abdomen darker, blackish in most specimens, males with yellow on segments 2 and 3, females with yellow ring on segment 2 and yellow at apex; pale specimens may have segments 1-4 mostly yellow in male; styles three-branched (Figure b), not blackened at tip of longest arm *uelensis* Alexander, 1928

\* I have been able to borrow the male holotype through the courtesy of Dr. Hesse of the South African Museum and find that the cerci are broken but that the styles are present and quite different from those of the other species. Each style is short, blunt and armed with short spines at the apex; there is a broad, inner, rounded branch at the base armed with short spines along the posterior border; the styles most closely resemble those of the Palaearctic species *P. albimana* Fabricius.

## References

- ALEXANDER, C. P., 1917. The Crane-flies of South Africa in the South African Museum (Diptera, Tipulidae). Part I. *Ann. S. Afr. Mus.*, **17**: 139-182.
- ALEXANDER, C. P., 1920. An undescribed species of *Ptychoptera* from West Africa (Ptychopteridae, Diptera). *Entomologist*, **53**: 101-2.
- ALEXANDER, C. P., 1921. An undescribed West African species of *Ptychoptera* Meigen. *Insec. Inscit. Menstr.*, **9**: 145-6.
- ALEXANDER, C. P., 1926. An undescribed species of *Dixa* from West Africa. *Insec. Inscit. Menstr.*, **14**: 10-12.
- ALEXANDER, C. P., 1927. Diptera, fam. Ptychopteridae. *Genera Insectorum*, fasc. 188.
- ALEXANDER, C. P., 1928. Two undescribed Nematoceros Diptera from the Belgian Congo. *Rev. Zool. Bot. Afr.*, **16**: 24-8.
- ALEXANDER, C. P., 1955. Contributions à l'étude de la faune entomologique du Ruanda-Urundi (mission P. Basilewsky, 1953). XXVII. Diptera Ptychopteridae et Tipulidae. *Ann. Mus. Congo Tervuren, Zool.*, **36**: 267-282.
- ALEXANDER, C. P., 1956. Undescribed species of Nematoceros Diptera. Part IV. *Bull. Brooklyn ent. Soc.*, **51**: 75-81.
- BENOIT, P. L. G., 1953. Un nouveau *Dixa* du Congo belge. *Rev. Zool. Bot. Afr.*, **48**: 202-3.
- COLLART, A., 1935. Un nouveau Liriopeidae du Congo Belge (Diptera, Nematocera). *Bull. Mus. R. Hist. Nat. Belg.*, **11**, no. 3.
- COOPER, J. L. and RAPP, W. F., 1944. Check list of Dixidae of the World. *Canad. Ent.*, **76**: 247-252.
- EDWARDS, F. W., 1928. Diptera, fam. Protorhyphidae, Anisopodidae, Pachyneuridae, Trichoceridae. *Genera Insectorum*, fasc. 190.
- EDWARDS, F. W., 1929. The African species of *Dixa* (Diptera, Dixinae). *Entomologist*, **62**: 160-1.
- EDWARDS, F. W., 1932. Diptera, fam. Culicidae. *Genera Insectorum*, fasc. 194.
- EDWARDS, F. W., 1932. A new African *Ptychoptera* (Dipt., Ptychopteridae). *Stylops*, **1**: 99.
- EDWARDS, F. W., 1934. The Percy Sladen and Godman Trusts Expedition to the Islands in the Gulf of Guinea, October 1932-March 1933. Dipt. Nematocera. *Ann. Mag. Nat. Hist.*, (10) **14**: 321-36.
- FREEMAN, P., 1956. A revision of the species of *Dixa* (Diptera: Culicidae) from Africa south of the Sahara. *Proc. R. ent. Soc. Lond.*, (B) **25**: 163-176.
- MATTINGLY, P. F., 1954. East African Culicidae (Dipt.). *Arch. Hydrobiol.*, **48**: 447-50.
- SÉGUY, E., 1938. Diptera. I. Nematocera et Brachycera. *Mission scientifique de l'Omo* **4**: 319-80.
- TOLLET, R., 1956. Anisopodidae. *Explor. Parc nat. Albert, I. Miss. de Witte*, fasc. **86** (3): 15-34.
- TONNOIR, A. L., 1924. New Zealand Dixidae (Dipt.) *Rec. Canterbury Mus.*, **2**: 221-33.
- WOOD, H. G., 1933. Two new South African species of *Dixa* (Diptera). *Entomologist*, **66**: 154-7.
- WOOD, M. G., 1934. Notes on the life history of *Dixa bicolor*, Wood (Dipt.). *Stylops*, **3**: 205-8.









MADE AND PRINTED IN GREAT BRITAIN BY  
WILLIAM CLOWES AND SONS, LIMITED  
LONDON AND BECCLES







